

REMARKS

Claims 5-9, 13, 18-22, 26, 35-38 and 40-53 remain pending in this application. Claims 1-4, 10-12, 14-17, 23-25, 27-34 and 39 have been cancelled previously. Claim 53 is added herein. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

PRIOR ART REJECTIONS

Claims 6, 7, 13, 36, 40 and 41 are rejected under 35 U.S.C. §103(a) as being obvious over Esterl (DE 100 16 391) in view of Baulier (US Patent 6,742,372) or Campain (US 5,454,261). Claims 19, 20, 26, 38, 46 and 47 are rejected under 35 U.S.C. §103(a) as being unpatentable over Esterl in view of Persson (US Patent No. 6,694,793) and Baulier or Campian. These rejections are respectfully traversed.

Esterl discloses a type of crease pliers 16 which hem the panel 26 by progressively break forming the flange 24. In operation, the upper jaw 20 is pivoted down toward flange bed 30 so that flange 24 is locally formed onto panel 28. *See*, Esterl, Fig. 2. Baulier and Campian also disclose devices which operate to break form the flange by vertically positioning a hemming die (40 in Baulier; 94 in Campian '261) down onto the nest (14 in Baulier; 14 in Campian '261). *See*, Baulier, Figs. 3-4 and Col. 3, line 62-Col. 4, line 8; Campian '261, Figs. 6-9, Col. 5, lines 25-42.

In contrast to the devices described in Esterl, Baulier and Campian '261 which employ dies that break form a flange, the claimed subject matter is directed to an apparatus "for crash forming the short flange." In response to Applicant's prior remarks, the Examiner dismissed the crash forming limitation stating "that a recitation of the

intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.” *Id.* at p. 6. Applicant submits that the structure disclosed in Esterl, Baulier and Campian is not capable of crash forming a flange. As noted above, these devices break form the flange by lower the hemming die, either by pivoting movement or vertical positioning (i.e., normal) to the nest.

Applicant has amended Claim 40 to more particularly point out and distinctly claim the structural features of the crash forming tool steel and address the Examiner’s statement is merely a statement of intended use. In particular, Claim 40 recites “the tool steel having a wedge-shaped face generally conforming to a short flange which is positionable by the robotic arm along a tool path in a direction generally parallel to the material contacting portion such that the tool steel is moved in spaced relation to the material contacting portion for crash forming the short flange on the first sheet material.” A comparison of Figs. 2-3 in the preset application with Figs. 3-4 of Boulter or Figs. 8-9 of Campian clearly illustrate these differences.

Applicant also previously remarked that Esterl does not include “a tool steel fixedly attached at an end of the robotic arm” as recited in Claim 40. The Examiner acknowledged that the tool steel of Esterl pivots relative to the robot arm but still considered the tool steel of Esterl to be fixedly attached to the robot arm. See Office Action (dated 12/28/09), p. 5. In support of this position, the Examiner interpreted “fixed” as meaning “securely placed or fastened.” While this may be a generally accepted meaning of the term “fixed,” Applicant submits that the term “fixedly attached”

as used in the claims should be interpreted as a tool steel secured to the forming steel assembly in a stationary manner so that the tool steel can be rapidly manipulated along a tool path to engage and crash form the short flange. See ¶¶ [0027]-[0028] and [0035].

Applicant has also amended Claim 40 to more particularly point out and distinctly claim the structural features of the tool steel without further limiting the claimed subject matter. In particular, Claim 40 recites “a forming steel assembly attached at an end of the robotic arm and a tool steel fixedly attached to the forming steel assembly in a stationary position, ...” Accordingly, Applicant submits that the claimed subject matter as amended set forth structural difference which serve to patentably distinguish the claimed invention from the teachings of Esterl, Baulier and Campian ‘261.

With respect to claims 19, 20, 26, 38, 46 and 47, Applicant notes that Persson does not remedy the deficiencies of Esterl, Baulier or Campian ‘261. As previously noted Persson describes a roller hemming apparatus to form the standard flange along an extended length of the body panel, and cannot be successfully used to crash form a short flange. The roller 4 described in Persson is not “fixedly attached to an end of the robotic arm, ” does not have “a wedge-shaped face conforming to a short flange” and cannot be used for “crash forming the short flange on the first sheet material.” It is therefore improper to conclude that the combination of Esterl and Persson with Baulier or Campian ‘261 renders the subject matter of claims 19, 20, 26, 38, 46 and 47 obvious. See, Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in View of the Supreme Court Decision in *KSR International Co. v. Teleflex Inc.*, 70 Fed. Reg. 57526, 57528-29 (Oct. 10, 2007) citing *In re Kahn*, 41 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006).

For the foregoing reasons, Applicant submits that the prior art of record does not teach or suggest the subject matter recited in the pending claims. Accordingly, Applicant respectfully request that the Examiner reconsider and withdraw the rejections based on Section 103 and pass this application to allowance.

ALLOWABLE SUBJECT MATTER

Applicant acknowledges the Examiner's indication that the subject matter of Claims 5, 8, 9, 18, 21, 22, 35, 37, 42-45 and 48-51 would be allowable if re-written in independent form including all of the limitations of the base claim and any intervening claims.

In view of the remarks set forth above, Applicant submits that Claims 5, 8, 9, 18, 21, 22, 35, 37 which depend directly or indirectly from Claim 40 are patentable over the art of record, and are in condition for allowance without being re-written in independent form. Claim 46 which was previously in independent form has been amended to depend from Claim 40.

Applicant has re-written Claim 42 in independent form and presents it as new claim 53. In view of the Examiner's prior indication of allowance, Applicant submits that claim 53 and claims 43-45 which depend therefrom are also now in condition for allowance.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is

believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

/ David A. McClaughry /

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